

REMARKS

In the Official Action mailed on **19 April 2007**, the Examiner reviewed claims 1-20. The specification is objected to because of informalities. Claims 19 and 20 were rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-7, 9-16 and 18-20 were rejected under 35 U.S.C. § 102(e) as being anticipated by Rajwar et al. (USPN 7,120,762, hereinafter "Rajwar"). Claims 8 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rajwar, in view of Hecht et al. (U.S. Pub. No. 2003/0064808, hereinafter "Hecht").

Rejections to the Specification

The specification is objected to because of informalities. Specifically, the specification is objected to because the paragraph [0001] and [0002] mention existing patent applications, but do not cite the application numbers.

Applicant has amended the specification to include the appropriate application numbers.

Rejections under 35 U.S.C. § 101

Claims 19 and 20 were rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Specifically, claims 19 and 20 were rejected because they lack necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 U.S.C. § 101, and are, at best, functional descriptive material *per se*.

Applicant has amended claims 19 and 20 to direct claims 19 and 20 to a computer-readable storage medium. No new material was added.

Rejections under 35 U.S.C. § 102(e)

Examiner rejected claims 1-20 under 35 U.S.C. § 102(e), asserting that these claims are anticipated by Rajwar. Applicant respectfully disagrees, because Rajwar discloses a system for concurrent execution of critical sections by eliding ownership of locks **with a lock elision circuit**.

Specifically, Rajwar discloses “the initiation and management of the speculative execution is controlled by the lock elision circuit 24,” (Rajwar, col. 7, lines 56-58).

Furthermore, Examiner avers that Rajwar discloses “encountering the commit instruction during execution of a program, wherein the commit instruction marks the end of a block of instructions to be executed transactionally,” because “upon completion of the critical section, if no conflict occurs, the execution is committed ... therefore, the instruction that performs the committing is considered to be the commit instruction,” (instant office action, page 4). However, nowhere does Rajwar disclose that the commit instruction marks the end of a block of instructions to be executed transactionally. In fact, Rajwar discloses that “the lock elision circuit 24 identifies the release lock section 32 and hence the end of the critical section 28 by the next STORE instruction to the same address,” (Rajwar, col. 7, lines 5-7).

In contrast to Rajwar, embodiments of the present invention provide a system that uses a commit instruction to support transactional execution. “The commit instruction marks the end of a block of instructions to be executed transactionally,” (Instant application, claim 1). Embodiments of the present invention do not require additional hardware or circuits to determine the critical sections because the critical sections are delineated by Start Transactional Execution (STE) instructions and commit instructions.

Therefore, Rajwar fails to teach encountering the commit instruction during execution of a program, wherein the commit instruction marks the end of a block of instructions to be executed transactionally, because Rajwar teaches away from embodiments of the present invention by disclosing use of the lock elision

circuit to determine the end of a block of instructions to be executed transactionally.

Hence, Applicant respectfully submits that independent claims 1, 9, and 19 are in condition for allowance. Applicant also submits that claims 2-9, which depend upon claim 1, claims 11-18, which depend upon claim 10, and claim 20, which depends upon claim 19, are in condition for allowance and for reasons of the unique combinations recited in such claims.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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